

occurred at 7:35 a. m. of the 24th on the New Jersey coast, while off the coast, on board the schooner "Addie Fuller," it was reported as low as 29.24 in.

No. XII.—During the night of the 25th this storm produced light rains along the California coast, and occasional thunder-storms. The 26th rainy weather was reported from Utah, Arizona, New Mexico and the southwestern portion of Texas, and light snow from northern New Mexico to western Nebraska and southern Wyoming. The 27th rainy weather continued from the southwestern half of Texas to Arizona, and snow fell at Virginia City; in Texas thunder-storms accompanied it. During the 28th clearing-up weather followed in Arizona, Utah and New Mexico; the rain-area included Kansas, Indian Territory, Louisiana and Texas, with thunder-storms in last. At midnight it was central between Galveston and Indianola, with a barometric trough extending towards Dakota, and light rain or snow commenced falling in the northern portions of Minnesota and Dakota. During the 1st and 2nd of March it progressed northward towards Lake Huron and thence northeastward, and increased very much in extent and severity, including the entire country east of the Rocky Mountains, but its subsequent history belongs to March. Cautionary signals were ordered for the Texas coast morning of the 23th, and justified at Indianola alone by a velocity of NW. 31 miles.

Vessels experiencing storms at sea.—Reports of same have been numerous, of which the following are given: 2nd, lat. 51° 15' N., long. 12° W., strong W. to SW. gales, with heavy squalls of hail and high sea for three days. 4th, 51° 26' N., 13° 29' W., strong W. gale and high sea. 9th, 44° N., 45° 33' W., strong W. gales, high seas and snow squalls; 44° 30' N., 46° 21' W., strong WNW. gale and high sea. 10th, 44° 44' N., 50° 30' W., heavy WNW. gale for three days; 49° N., 29° W., hurricane NW.; 42° 28' N., 48° 52' W., strong W. by N. gales and high seas; 46° 09' N., 42° 45' W., strong WNW. gale and high seas; off Bermuda, heavy SE. shifting to NW. gale. 11th, 47° 06' N., 35° 52' W., strong W. gale, hail and high sea; in the straits of Florida, severe NE. gale until 15th. 13th, 39° 17' N., 73° W., heavy NW. gale; 41° N., 67° 27' W., strong NW. gale; 48° 53' N., 36° 25' W., strong N. gale and high sea; 50° 30' N., 18° 49' W., strong WSW. gale; 25° 30' N., 66° 41' W., severe NE. gale; 20° 09' N., 53° 49' W., heavy SSW. gale veering to NW. 14th, 40° 31' N., 68° 36' W., strong NNW. gale, heavy sea and snow squalls. 15th, 45° 20' N., 39° 10' W., cyclone lasting four hours. 16th, 39° 37' N., 67° W., heavy SE. to WSW. gale; 34° N., 70° 30' W., hurricane NE. to S.; near Bermuda, heavy gale. 18th, 27° 01' N., 61° 55' W., heavy NW. gale for twelve hours, then veering to NE. 19th, 43° 04' N., 45° 52' W., strong SW. to SSE. gale. 20th, 30° 40' N., 79° 30' W., strong N. gale; 34° N., 74° W., heavy SSW. gale for eight hours, then veering to NNE. for thirty hours. 28th, 45° 10' N., 50° 25' W., strong NW. gale, snow squalls and high NW. sea.

TEMPERATURE OF THE AIR.

The isothermal curves and figures upon chart No. II illustrate the general distribution of the temperature of the air for the present month. A reference to the table upon the same chart will show that the average is above that for many years, excepting the South Atlantic and Gulf States, especially for the northern districts. For the Gulf States alone the average is lower than usual.

Minimum and Maximum Temperatures, respectively, for the month: in Maine, Orono, —4°, 40°; Portland, 12°, 49°. N. H., Mt. Washington, —16°, 35°; Auburn, 4°, 64°. Vt., Woodstock, —7°, 50°; West Charlotte, 5°, 53°. Mass., Williamstown, 3°, 48°; Milton, 16°, 58°. R. I., Fort Adams, 14°, 48°; Newport, 16°, 46°. Conn., Colebrook, 9°, 45°; Mystic, 12°, 56°. N. Y., Rodman, —8°, 58°; New York, 16°, 59°. N. J., New Brunswick, 9°, 53°; Salem, 16°, 62°. Penn., Tioga, —5°, 57°; Carlisle, 19°, 68°. Del., Dover, 18°, 64°. Md., New Market, 12°, 62°; Baltimore, 18°, 63°. D. C., Washington, 20°, 67°. Va., Snowville, 12°, 64°; Fort Monroe, 26°, 72°. W. Va., Salem, 14°, 66°; Weston, 16°, 65°. Ohio, Salem, 8°, 59°; Kenton, 16°, 67°. Ind., Richmond, 19°, 60°; St. Meinrad, 23°, 70°. Ill., Riley, 12°, 56°; Carbondale, 20°, 73°. Mich., Northport, 3°, 48°; Detroit, 16°, 58°. Wis., Neillsville, 5°, 50°; Embarrass, 8°, 64°. Minn., Fort Ripley, —20°, 49°; Fort Snelling, 8°, 58°. Iowa, Cresco, 5°, 52°; Muscatine, 16°, 63°. Mo., Corning, 13°, 65°; St. Louis, 27°, 69°. Neb., Norfolk, 9°, 57°; Howard, 14°, 64°. Kan., Fort Hays, 16°, 62°; Great Bend, 19°, 69°. Ky., Danville, 21°, 67°; Louisville, 24°, 68°. Tenn., Knoxville, 22°, 62°; Memphis, 30°, 67°. N. C., Franklin, 15°, 61°; Wilmington, 28°, 71°. S. C., Spartanburg, 23°, 66°; Charleston, 35°, 70°. Ga., Atlanta, 25°, 68°; St. Mary's, 34°, 76°. Fla., Milton, 29°, 75°; Key West, 57°, 80°. Ala., Green Spring, 26°, 68°; Carlowville, 32°, 73°. Miss., Vicksburg, 31°, 73°. La., Baton Rouge, 29°, 78°; Lake Charles, 38°, 78°. Tex., Fort Richardson, 18°, 66°; Ft. Brown, 37°, 81°. Ark., Mt. Ida, 21°. 59°; Monticello, 23°, 71°. Ind. Ty., Fort Sill, 19°, 69°; Fort Gibson, 26°, 65°. N. M., Fort Union, 2°. 54°; Santa Fe, 19°, 56°. Col., Pike's Peak, —8°, 22°; Golden, 20°, 66°. W. Va., Fort Bridger, —3°. 54°; Fort Fred Steele, 6°, 57°. Dak. Ty., Pembina, —21°, 42°; Fort Sully, 3°, 62°. Utah, Coalville, —4°, 56°; Salt Lake City, 15°, 55°. Montana, Virginia City, —5°, 49°. Nev., Camp Halleck, 4°, 59°. Camp McDermitt, 15°, 60°. Cal., Cloverdale, 34°, 74°; San Diego, 45°, 78°.

Ice.—At Boonesboro, Iowa, on the Des Moines river, had been from 22 to 30 in. thick—broke up 2nd.) Flushing, N. Y., on Flushing Bay, 14 in. thick, 11th. Wappinger's Falls, N. Y., pond ice, 18 in. thick, 16th; ice on Hudson river honey-combed and open in places, 21st. Oregon, Pa., pond ice 20 in.

thick, 28th. Lunenburg, Vt., ice on ponds and streams 24 in. thick, 28th. Ice harvested 12 to 13 in. thick on Lake Champlain, at West Charlotte, Vt.

Frost in the ground.—At Council Grove, Kan., frost out of the ground, 2nd. Sandy Springs, Md., in southern exposures, frost disappeared from ground by 10th. Howard, Neb., frost nearly out of ground by 20th. Keokuk, frost out of ground, 21st. Flushing, N. Y., no frost in ground, 22nd. Kenton, Ohio, frost out of ground, 25th. Clear Creek, Neb., during winter ground frozen to a depth of 30 in., at close of month had thawed 8 or 10 in. Freehold, N. J., no frost in ground to a depth of 6 in. Brookhaven, N. Y., frost out of ground, and South Hartford, N. Y., ground having been protected so long by snow, the frost is largely out of ground.

PRECIPITATION.

Upon chart No. III is represented the amount of rain-fall, including melted snow. For Virginia City the total is 0.73 in. At Portland, Or., the fall has exceeded the average. In the remaining sections there has been a deficiency.

Stations reporting the precipitation zero or not sufficient to measure.—Fort Wayne, (Detroit,) Port Huron and Litchfield, Mich.; Fort Ripley, New Ulm and Minneapolis, Minn.; Independence, Iowa; Webster, N. C.; Beloit, Wis.; Camp Sheridan, Neb.; Fort Laramie, Fort Sanders and Camp Staumbaugh, Wy.

Stations reporting one-tenth of an inch, or less, of precipitation for the month.—Fort Abercrombie, Fort Seward, Pembina and Firesteel, Dak.; Fort Snelling, Duluth, St. Paul and Breckenridge, Minn.; Fort Fred Steele, Wyoming; South Pueblo, Col.; Chicago, Rockford, Riley, Havana and Peoria, Ill.; Fort Wayne, Ind.; Rockford, Independence, Cresco and Davenport, Iowa; Detroit, Grand Rapids, Northport and Grand Haven, Mich.; Wet Glaze, Mo.; Vermillion, N. Y.; Little Mountain, Hudson and Toledo, Ohio; Snowville, Va.; Bloomfield, Wautoma, Neillsville and Milwaukee, Wis.; Rockliffe and Kingston, Canada.

Maximum rain-falls for the month.—Melissa, Tex., 13.06 (?); Brownsville, Tex., 7.99; Portland, Or., 7.56; Austin, Tex., 6.94; Denison, 6.89; Corsicana, 6.84; New Ulm, Tex., 6.75; Boerne, Tex., 6.46; Cape Hatteras, 5.85 inches.

Heavy Rains.—Melissa, Tex., from 7 a. m. 1st to 12:30 p. m. 3rd, 5 in., and 9 a. m. 11th to 3 p. m. 13th, 7.31 in. Austin, Tex., from 9 p. m. 1st to 7 a. m. 2nd, 2 in., 7 a. m. 11th to 7 p. m. 12th, 2.24 in., and 12 m. 27th to 12 night 28th, 2.70 in. New Ulm, Tex., from 1:30 p. m. 11th to 8 p. m. 12th, 3.62. Corsicana, 28th, 2.20 in. Denison, 1st and 2nd, 3.28 in., and 12th, 2.26 in. Cape Hatteras, 5th, 3.17 in., and 16th, 2.45 in.

Snow-fall for the month varies as follows: from Maine to the northern portions of New York and Pennsylvania, 0.5 to 10 in.; southern New England to Maryland, 0 to 8; West Virginia, 3; western North Carolina, 1.5 to 3.5; Ohio, 0.5 to 1; Upper Lake region, 0.25 to 3; Illinois and Missouri, 0 to 1; Iowa and eastern Nebraska, 0.25 to 2.5; Kansas, 1.25 to 5; Colorado, at Golden, 5, and Summit, 33; Utah, at Coalville, 2 inches.

Depth of Snow at close of month: in northern New England reports vary from 12 to 22 inches; southern New England, 0 to 10; northern portions of New York and Pennsylvania, 2 to 20; Upper Lake region, 0 to 0.5; Coalville, Utah, 1 inch.

Cloudy Days.—The number of days on which the cloudiness has averaged eight-tenths or more, as reported by the volunteer observers, ranges as follows: New England, 2 to 16; Middle States, 3 to 12; South Atlantic States, 2 to 14; Gulf States, 7 to 14; Arkansas, Tennessee and the Ohio valley, 3 to 11; Upper Lake region, 4 to 8; Northwest, 1 to 12 days.

Rainy Days.—The number of days during the month on which rain or snow, in any quantity, has fallen, ranges as follows for the Signal Service stations: New England, 3 to 15; Middle Atlantic States, 3 to 10; South Atlantic States, 5 to 8; Eastern Gulf States, 4 to 11; Western Gulf States, 5 to 12; Indian Territory, Arkansas, Tennessee and the Ohio valley, 4 to 9; Lower Lake region, 3 to 14; Upper Lake region, 3 to 10; Northwest, 3 to 8; Rocky Mountain stations, 5 to 12; California coast, 1 to 7 days.

Droughts.—Belvidere, Ill., dryest month in ten years. Waltham, Mass., drought has prevailed. Shelburne, N. H., springs low 13th. South Hartford, N. Y., streams and fountains low during month, but beginning to rise at close. Ruggles, Ohio, a very dry month. Ringgold, Ohio, smallest rain-fall ever recorded in February. Woodstock, Vt., drought still continues; wells and springs dry. Snowville, Va., month dry and water low. Wytheville, Va., on 22nd a drought, no rain having fallen for over a month.

RELATIVE HUMIDITY.

The average relative humidity for the month, as reported from the Signal Service stations, ranges as follows: in New England, 65 to 78 per cent; Middle Atlantic States, 52 to 66; New Jersey and North Carolina coast stations, 70 to 76; South Atlantic States, 60 to 69; Gulf States, 64 to 76; Indian Territory, Arkansas, Tennessee and the Ohio valley, 59 to 70; Lower Lake region, 65 to 73; Upper Lake region, 66 to 75; Missouri and Upper Mississippi valleys, 63 to 73; Valley of the Red River of the North, 67 to 83; Rocky Mountain stations, 53 to 75; California coast, 70 to 74; Key West, 80; Mt. Washington, 85.